Application No. 10/090,461
Filed: March 4, 2002
TC Art Unit: 2667
Confirmation No.: 3317

REMARKS

The instant Remarks are filed in response to the official action dated January 5, 2006. Reconsideration is respectfully requested.

The status of the claims is as follows:

Claims 1-14 are currently pending.

Claims 1-14 stand rejected.

The Examiner has rejected claims 1-3 and 8-10 under 35 U.S.C. 103(a) as being unpatentable over Abu-Amara *et al.* (USP 5,914,945) in view of Hluchyj *et al.* (USP 5,426,640) and further in view of "Edge Closed User Groups" (provided by the Applicants). The Applicants respectfully submit, however, that base claims 1 and 8 and the claims dependent therefrom recite non-obvious subject matter that distinguishes over the art of record.

For example, claim 1 recites a method of providing transparent local area network (LAN) service in a ring network, including allocating respective proportions of data transmission capacity of the ring to different closed user groups (CUGs), in which each closed user group includes a corresponding plurality of LAN clients of the transparent LAN service, and, at each of a plurality of network devices attached to the ring, monitoring the use of a connected segment of the ring for both pass-through and

WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290
FAX. (617) 451-0313

locally-generated traffic by the LAN clients on a per-CUG basis, and, upon detecting that use of the connected segment for a given CUG is approaching the proportion of ring data transmission capacity allocated to the CUG, selecting an active one of the LAN clients of the CUG and sending a throttle message to the selected LAN client, in which the throttle message indicates that the LAN client is to reduce its data transmission rate.

The notion of allocating respective proportions of data transmission capacity of a ring network to different CUGs, monitoring the use of a connected segment of the ring for traffic generated by LAN clients on a per-CUG basis, and sending a throttle message to a selected LAN client of a CUG in the event it is determined that the use of a connected segment for that CUG is approaching the allocated ring data transmission capacity, is described throughout the instant application, for example, see page 2, line 19, to page 3, line 18, of the application. By sending a throttle message to a LAN client of a closed user group when the use of a connected segment for that CUG approaches the allocated ring data transmission capacity, the CUG can be limited to its specified aggregate rate without requiring any specification or monitoring of individual data rates among users of the CUG (see page 3, lines 10-12, of the application). As a

WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290
FAX. (617) 451-0313

result, transparent LAN services can be provided in a simpler manner, and the costs and complexity involved in configuring and otherwise managing enterprise networks that rely on transparent LAN services can be reduced (see page 2, lines 12-16, of the application).

As indicated in the official action, the Abu-Amara reference does not disclose a ring network. The Applicants respectfully point out that like the Abu-Amara reference, the Hluchyj reference also does not disclose a ring network. Even if the respective disclosures of the Abu-Amara and Hluchyj references were applicable to ring networks, the Applicants respectfully submit that the teachings of Abu-Amara *et al.*, Hluchyj *et al.*, and the "Edge Closed User Groups" reference, taken alone or in combination, would not have suggested to one of ordinary skill in the art at the time of the invention the method of providing transparent LAN service in a ring network, as recited in claim 1.

For example, the official action indicates that it would have been obvious to one skilled in the art to use the monitoring and enforcement method of Hluchyj *et al.* within the network of Abu-Amara *et al.* to provide "a greater scope of action, congestion tracking at each intermediate node, and rate adjustment only of violators". The Applicants respectfully point out, however, that

WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290
FAX. (617) 451-0313

the monitoring method of Hluchyj *et al.* does not teach or suggest the step of monitoring the use of a connected segment of the ring network for both pass-through and locally-generated traffic by LAN clients on a per user group basis, in which each user group includes *a corresponding plurality of LAN clients*, as recited in claim 1. Instead, Hluchyj *et al.* disclose tracking the network congestion level for a plurality of *queue* groups (see column 4, lines 46-50, of Hluchyj *et al.*), which is significantly different from monitoring the use of a connected network segment for traffic generated by LAN clients on a per user group basis, in which each user group includes *a plurality of LAN clients*, as recited in claim 1.

Specifically, the Hluchyj reference discloses that packets are queued into at least voice and data transit queues, and that voice and data are in separate queue groups. The Hluchyj reference also discloses that the congestion level is determined by comparing an average depth of transit queues within a queue group to a set of predetermined thresholds (see column 4, lines 38-43, of Hluchyj *et al.*). The Hluchyj reference therefore teaches monitoring network traffic based upon the average depths of transit queues within queue groups, in which each queue group includes a particular type of packet, *e.g.*, voice or data. The

WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290
FAX. (617) 451-0313

Applicants respectfully submit that Hluchyj *et al.* provide no hint of any correlation whatsoever between each queue group and a corresponding plurality of LAN clients. In addition, the Hluchyj reference discloses a system 600 for providing rate-based congestion control that includes a BCCL signal unit 624 configured to provide a backward correlated congestion level (BCCL) state indication to a source edge node unit 602 (see column 9, lines 41-44, and Fig. 6, of Hluchyj *et al.*). The Applicants respectfully point out, however, that Hluchyj *et al.* neither teaches nor suggests that the source edge node unit 602 corresponds to an active one of a plurality of LAN clients within a user group. Accordingly, it is respectfully submitted that the Hluchyj reference does not teach or suggest monitoring the use of a connected network segment for both pass-through and locally-generated traffic by LAN clients on a per user group basis, as recited in claim 1.

The official action further indicates that both the Abu-Amara reference and the Hluchyj reference disclose tracking network segment connections based upon groups. The Applicants respectfully submit, however, that like Hluchyj *et al.*, Abu-Amara *et al.* also fail to teach or suggest monitoring the use of a connected network segment for both pass-through and locally-

WEINGARTEN, SCHURGIN, GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290
FAX. (617) 451-0313

generated traffic by LAN clients *on a per user group basis*, as recited in claim 1. As explained above, each user group recited in claim 1 includes a plurality of *LAN clients*. In contrast, the Abu-Amara reference discloses a plurality of different service groups within a network. As disclosed by Abu-Amara *et al.*, the services provided within each service group may include voice, data, teleconferencing, video on demand, and other similar communication types (see column 4, lines 3-5, of Abu-Amara *et al.*). The Applicants submit that Abu-Amara *et al.* provide no hint of any correlation whatsoever between each service group and a corresponding plurality of LAN clients. Accordingly, it is respectfully submitted that the teachings of Abu-Amara *et al.* and Hluchyj *et al.*, taken alone or in combination, would not have suggested to one skilled in the art the step of monitoring the use of a connected network segment for both pass-through and locally-generated traffic by LAN clients on a per user group basis, as recited in claim 1.

In addition, the official action indicates that it would have been obvious to one of ordinary skill in the art at the time of the invention to use closed user groups (CUGs) within the networks disclosed by Abu-Amara *et al.* and Hluchyj *et al.* because CUGs provide a greater level of security, as taught by "Edge Closed

WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290
FAX. (617) 451-0313

User Groups". However, as explained above, neither Abu-Amara *et al.* nor Hluchyj *et al.* disclose monitoring the use of a connected network segment for traffic generated by LAN clients on a per user group basis, in which each user group includes a *plurality of LAN clients*, as recited in claim 1. Like the Abu-Amara and Hluchyj references, the reference "Edge Closed User Groups" also does not disclose monitoring connected network segments for traffic generated by LAN clients on a per user group basis, as recited in claim 1. The teachings of Abu-Amara *et al.*, Hluchyj *et al.*, and "Edge Closed User Groups", taken alone or in combination, therefore would not have suggested to one skilled in the art the step of monitoring the use of a connected network segment for both pass-through and locally-generated traffic by LAN clients on a per user group basis, each user group including a plurality of LAN clients, as recited in claim 1.

The Applicants respectfully point out that via the method of claim 1, transparent LAN services can be provided in a simpler manner, and the costs and complexity involved in configuring and otherwise managing enterprise networks that rely on transparent LAN services can be reduced. It is well settled that such results and advantages are part of the invention "as a whole", and should be afforded consideration in an analysis under 35 U.S.C. 103. The

WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290
FAX. (617) 451-0313

Applicants respectfully submit that the results and advantages derived from the subject matter of base claims 1 and 8 and the claims dependent therefrom are neither taught nor suggested in the art of record.

Accordingly, it is respectfully submitted that the rejections of claims 1-3 under 35 U.S.C. 103(a) are unwarranted and should be withdrawn. For at least the reasons presented above with reference to claim 1, it is further submitted that the rejections of claims 8-10 under 35 U.S.C. 103(a) are unwarranted and should be withdrawn.

The Examiner has rejected claims 4 and 11 under 35 U.S.C. 103(a) as being unpatentable over Abu-Amara et al. in view of Hluchyj et al., further in view of "Edge Closed User Groups", and still further in view of Hahne *et al.* (USP 5,014,265). The Examiner has also rejected claims 5 and 12 under 35 U.S.C. 103(a) as being unpatentable over Abu-Amara et al. in view of Hluchyj et al., further in view of "Edge Closed User Groups", and still further in view of Chrysos (US 2001/0014928). In addition, the Examiner has rejected claims 6-7 and 13-14 under 35 U.S.C. 103(a) as being unpatentable over Abu-Amara et al. in view of Hluchyj et al., further in view of "Edge Closed User Groups", and still further in view of Kalkunte *et al.* (USP 6,118,761). The

WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290
FAX. (617) 451-0313

Applicants respectfully submit, however, that the Hahne, Chrysos, and Kalkunte references fail to cure the deficiencies of the Abu-Amara, Hluchyj, and "Edge Closed User Groups" references, and therefore the teachings of the Abu-Amara, Hluchyj, "Edge Closed User Groups", Hahne, Chrysos, and Kalkunte references, taken alone or in combination, would not have suggested to one skilled in the art the subject matter of dependent claims 4-7 and 11-14. Accordingly, it is respectfully submitted that the rejections of claims 4-7 and 11-14 under 35 U.S.C. 103 are unwarranted and should be withdrawn.

In view of the foregoing, it is respectfully submitted that the present application is in a condition for allowance. Early and favorable action is respectfully requested.

The Examiner is encouraged to telephone the undersigned Attorney to discuss any matter that would expedite allowance of

WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290
FAX. (617) 451-0313

Application No. 10/090,461
Filed: March 4, 2002
TC Art Unit: 2667
Confirmation No.: 3317

the present application.

Respectfully submitted,

ROBERT SULTAN ET AL.

By: Richard E. Gamache

Richard E. Gamache
Registration No. 39,196
Attorney for Applicants

WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
Ten Post Office Square
Boston, MA 02109
Telephone: (617) 542-2290
Telecopier: (617) 451-0313

REG/pjd
Enclosure

334313.1

WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290
FAX. (617) 451-0313